REMARKS

In the June 22, 2005 Office Action, the abstract was objected to and claims 1-8 and 10-14 stand rejected in view of prior art. Claims 2 and 10-14 also were rejected for failing to indicate and claim particularly and distinctly the subject matter that Applicant regards as the invention. Claims 9 and 15-17 were withdrawn from consideration as being directed to non-elected species. No other objections or rejections were made in the Office Action.

Status of Claims and Amendments

In response to the June 22, 2005 Office Action, Applicant has amended the abstract, amended claims 1, 7, 8 and 10, cancelled claim 6, and added new claims 18-20, as indicated above. Thus, claims 1-5 and 7-20 are now pending, with claims 1, 8, 10 and 18 now being the only independent claims. Reexamination and reconsideration of the pending claims are respectfully requested in view of above amendments and the following comments.

Interview Summary

On September 13, 2005, the undersigned conducted a personal interview with Examiner Vinh Luong, who is in charge of the above-identified patent application. Applicant wishes to thank Examiner Luong for the opportunity to discuss the above-identified patent application during the Interview. Basically, the indefiniteness rejection and the prior art rejections were discussed during the personal Interview.

With respect to the indefiniteness rejection, the undersigned directed the Examiner to paragraph [00107] of the application as filed. Paragraph [00107] of the application as filed corresponds to paragraph [00109] of the published application. The undersigned argued that paragraph [00107] in the application as filed does provide a standard for ascertaining the requisite degree, and thus, the indefiniteness rejection should be withdrawn. Agreement was reached that the indefiniteness rejection should be withdrawn.

With respect to the prior art rejections of claims 1-8, the undersigned argued that the prior art fails to disclose or suggest the control lever constructed of a cast material that is drilled to form the hollow zone, as required by claim 6. While it was agreed that such an arrangement does not appear to be disclosed in the prior art, Examiner Luong indicated that it is unclear how much weight should be given to such limitations because these appear to be product by process limitations. Examiner Luong suggested submitting secondary evidence

showing unexpected results or including the blind bore limitation (i.e. of claim 8) to better distinguish the prior art. Agreement was reached that the undersigned should further clarify independent claim 1 and/or claim 6 to better distinguish the prior art, or submit secondary evidence. In response, Applicant has amended independent claim 1 to include limitations similar to claim 6 but with structural limitations, and further clarified the structure of the axially extending hollow zone to better distinguish the prior art. The changes to claim 1 will be discussed in more detail below with reference to the prior art rejections.

With respect to the prior art rejections of claims 10-14, the undersigned argued that the prior art fails to disclose or suggest the arrangements of the first actuation surface and the second inclined actuation surface with the dimensional relationships as claimed. Examiner Luong suggested amending independent claim 10 to more clearly recite the arrangement of the present invention based on the descriptions of paragraphs [0079] - [0082] and Figure 7 of U.S. Patent Publication No. 2005/0022624 or including the blind bore limitation (i.e. of claim 8) to better distinguish the prior art. Agreement was reached that the undersigned should further clarify independent claim 10 to better distinguish the prior art. In response, Applicant has amended independent claim 10 relate the relative sizes of the actuation surfaces relative to the overall dimensions of the control lever to better distinguish the prior art. The changes to claim 10 will be discussed in more detail below with reference to the prior art rejections.

Finally, it was noted during the Interview that U.S. Patent No. 5,775,168 to Furuta, which was used to reject some of the claims was not listed on form PTO-892. Examiner Luong agreed to list this reference on a form PTO-892 attached to the next communication. In any case, Applicant wishes to thank Examiner Luong for the courteous interview and for the helpful suggestions for amending the claims.

Election of Species

In paragraphs 1 and 2 of the Office Action, Applicant's election of Species I, illustrated in Figures 1-9, ***without traverse*** in the reply filed April 14, 2005 was acknowledged. Thus, non-elected claims 9 and 15-17 were withdrawn from further consideration. However, Applicant respectfully requests that non-elected claims 9 and 15-17 be rejoined in this application upon allowance of a generic and/or linking claim, or claims in accordance with U.S. patent practice. Applicant has added new claims 18-20 by the current Amendment, as mentioned above.

Applicant believes new claims 18-20 read on the elected embodiment of Species I, illustrated in Figures 1-9. Accordingly, examination and consideration of claims 18-20 are respectfully requested.

Abstract

In paragraphs 3 and 4 of the Office Action, the Abstract was objected to because of the implied phrase "is disclosed", and appropriate correction was required. In response, Applicant has amended the Abstract by the current Amendment to remove the objectionable language. Accordingly, withdrawal of this objection is respectfully requested.

Claim Rejections - 35 U.S.C. §112

In paragraphs 5 and 6 of the Office Action, claims 2 and 10-14 were rejected under 35 U.S.C. §112, second paragraph. Specifically, the Office Action alleges that the term "substantially" renders these claims indefinite because the term is not defined by the claims and the specification does not provide a standard for ascertaining the requisite degree. The Office Action further alleges that one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. In response, Applicant respectfully traverses this rejection. Applicant notes that paragraph [00107] in the application as filed does provide a standard for ascertaining the requisite degree. Moreover, these terms are common in the art and those of ordinary skill in the art would be reasonably apprised of the scope of the invention, especially in view of the standard set forth in paragraph [00107] of the application as filed. Paragraph [00107] of the application as filed corresponds to paragraph [00109] of the published application. Thus, Applicant believes that the claims do comply with 35 U.S.C. §112, second paragraph. Accordingly, withdrawal of this rejection is respectfully requested in view of the above comments.

Rejections - 35 U.S.C. § 102

In paragraphs 7-9 of the Office Action, claims 1, 2, 4, 6, 7 and 10-14 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,100,820 to Evett (hereinafter "the Evett patent") or U.S. Patent No. 5,775,168 to Furuta (hereinafter "the Furuta patent"). Specifically, claims 1, 2, 4, 7 and 8 were rejected as being anticipated by the Evett patent, while claims 10-14 were rejected as being anticipated by the Furuta patent. In response, Applicant has amended independent claims 1 and 10 to more clearly define the

present invention over the prior art of record. Also, Applicant has amended claim 8 to place this claim in independent form. Applicant respectfully traverses the rejection of claim 8.

Referring initially to the rejection of claims 1, 2, 5, 6 and 7, independent claim 1 as now amended requires the control lever being constructed of a cast material having an internal bore extending axially to form the hollow zone with the internal bore being surrounded by the cast material along a majority of an axial length of the internal bore, the internal bore having a substantially circular transverse cross-sectional shape such that the control lever has a non-uniform wall thickness as measured in a direction transverse to the axially extending internal bore between the internal bore and an external surface of the at least one of the intermediate section and the actuating section having the hollow zone formed therein. Clearly, this structure is ***not*** disclosed or suggested by the Evett patent or any other prior art of record.

Specifically, the Evett patent fails to disclose or suggest ***an internal bore extending axially to form the hollow zone with the internal bore being surrounded by cast material along a majority of an axial length of the internal bore***. Rather, in the Evett patent, the so-called hollow zone is either open along its entire axial length, or alternatively, extends transversely not axially. See attachment 1 of the June 22, 2005 Office Action. Moreover, Applicant has clarified that the control lever is constructed of ***cast material***. It is also believed that Evett does not disclose a lever constructed of cast material. Furthermore, Evett does not disclose or suggest an internal bore having a substantially circular transverse cross-sectional shape such that the control lever has a non-uniform wall thickness as measured in a direction transverse to the axially extending internal bore between the internal bore and an external surface of the at least one of the intermediate section and the actuating section having the hollow zone formed therein. It is well settled under U.S. patent law that for a reference to anticipate a claim, the reference must disclose each and every element of the claim within the reference. Therefore, Applicant respectfully submits that claim 1, as now amended, is not anticipated by the prior art of record. Accordingly, withdrawal of this rejection is respectfully requested.

Moreover, Applicant believes that the dependent claims 2, 4, 6 and 7 are also allowable over the prior art of record in that they depend from independent claim 1, and

therefore are allowable for the reasons stated above. Also, the dependent claims 2, 4, 6 and 7 are further allowable because they include additional limitations. Thus, Applicant believes that since the prior art of record does not anticipate the independent claim 1, neither does the prior art anticipate the respective dependent claims. Accordingly, withdrawal of the rejection of these dependent claims is also respectfully requested.

Referring now to the rejection of claims 10-14, independent claim 10 as now amended requires ***the inclined second actuation surface having a transverse height that is at least one-half of the transverse height of the first actuation surface with the transverse heights being measured in directions perpendicular to the first plane, and the transverse height of the first actuation surface being more than half of an overall transverse height of the actuating section as measured in directions perpendicular to the first plane***. This claim also requires a control lever including an attachment section and an actuating section extending from the attachment section, the attachment section being operatively coupled to the control mechanism, the actuating section having a first actuation surface extending in a direction substantially perpendicular to the first plane and an inclined second actuation surface facing substantially away from the first actuation surface downwardly and towards the handlebar, the inclined second actuation surface extending in a direction intersecting the first and second planes, where the first and second planes are substantially perpendicular to each other. Clearly, this structure is ***not*** disclosed or suggested by the Furuta patent or any other prior art of record.

The Office Action basically indicates that the Furuta patent shows every positively claimed feature of the claims, as best understood. Applicant respectfully disagrees with the position of the Office Action, especially in view of the amendments to claim 10. At best, it appears that the Furuta patent ***may*** have a very small (i.e. a corner or edge surface, not shown) and a portion of a forward facing surface (not shown) that meet some limitations of the claim. However, these surfaces, if even present, would not be large enough relative to the overall transverse height to meet the limitations of claim 10, especially as now amended. In any case, because the Furuta patent neither discusses nor illustrates the cross-sectional shape of the lever, it is impossible to determine the shape and orientation of the surfaces of the control lever. In fact, the Office Action acknowledges later in the Office Action that the

Furuta patent fails to explicitly disclose these limitations of claim 10. Even though the precise shape of the lever of Furata is impossible to determine, Applicant has clarified the relative dimensions of the actuation surfaces relative to the overall transverse height of the actuating section to avoid any hypothetical interpretation of the Furuta patent, which could even hypothetically anticipate the claim. Accordingly, it is now abundantly clear that the Furuta patent cannot anticipate claim 10. It is well settled under U.S. patent law that for a reference to anticipate a claim, the reference must disclose each and every element of the claim within the reference. Therefore, Applicant respectfully submits that claim 10, as now amended, is not anticipated by the prior art of record. Accordingly, withdrawal of this rejection is respectfully requested.

Moreover, Applicant believes that the dependent claims 11-14 are also allowable over the prior art of record in that they depend from independent claim 10, and therefore are allowable for the reasons stated above. Also, the dependent claims 11-14 are further allowable because they include additional limitations. Thus, Applicant believes that since the prior art of record does not anticipate the independent claim 10, neither does the prior art anticipate the respective dependent claims. Accordingly, withdrawal of the rejection of these dependent claims is also respectfully requested.

Rejections - 35 U.S.C. § 103

In paragraphs 10-12 of the Office Action, claims 1, 3, 5, 8 and 10-14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the Furuta patent. In response, Applicant has amended independent claims 1 and 10, and rewritten claim 8 in independent form, as mentioned above. This rejection is respectfully traversed, especially in view of these amendments, as explained below.

Turning initially to the rejection of claim 8, this rejection is respectfully traversed. Claim 8 requires at least one of the intermediate section and the actuating section having a hollow zone formed therein that extends axially along the at least one of the intermediate section and the actuating section of the control lever, ***the hollow zone being a blind bore that is open at a free end of the actuating section of the control lever***. Clearly, this structure is ***not*** disclosed or suggested by the Furuta patent or any other prior art of record.

In fact, the Office Action acknowledges that this feature is not shown in the prior art. However, the Office Action indicates that such an arrangement would be an obvious design choice since the function is the same as the prior art. Applicant respectfully disagrees. While Applicant acknowledges that, in general, holes or cutouts are often formed in various members for weight savings, the prior art does not disclose or suggest the unique arrangement of the hollow zone as claimed. First, the prior art does not disclose a blind bore formed in a brake lever whatsoever. Second, assuming arguendo that blind bores are well known, claim 8 requires a unique axial orientation with the open end of the blind bore at a specific location (i.e. at the free end of the actuating section). Such an arrangement potentially provides an aesthetically pleasing look (i.e. a solid look) yet with a relatively lightweight structure, and allows for smooth (i.e. uninterrupted or free from holes) actuating surfaces on the actuating section where the rider's hand touches (ergonomic exterior shape). Furthermore, such an arrangement permits a relatively strong construction while also being relatively lightweight. In other words, the arrangement as currently claimed potentially provides many benefits beyond simply weight savings. It is well settled in U.S. patent law that the mere fact that the prior art can be modified does ***not*** make the modification obvious, unless the prior art ***suggests*** the desirability of the modification. In this case, the prior art does not disclose or suggest providing a blind bore in a bicycle control lever in the unique arrangement as currently claimed. In other words, assuming arguendo that one of ordinary skill in the art made a blind bore in the lever of the Furuta patent, there is no suggestion or motivation to orient and locate the blind bore as currently required by independent claim 8. Accordingly, the prior art of record lacks any suggestion or expectation of success for modifying the Furuta patent to create the Applicant's unique arrangement, as required by claim 8. Accordingly, withdrawal of this rejection is respectfully requested.

Referring now to the rejection of claims 1, 3 and 5, independent claim 1 as now amended requires the control lever being constructed of a cast material having an internal bore extending axially to form the hollow zone with the internal bore being surrounded by the cast material along a majority of an axial length of the internal bore, the internal bore having a substantially circular transverse cross-sectional shape such that the control lever has a non-uniform wall thickness as measured in a direction transverse to the axially extending internal

bore between the internal bore and an external surface of the at least one of the intermediate section and the actuating section having the hollow zone formed therein. Clearly, this structure is ***not*** disclosed or suggested by the Furuta patent or any other prior art of record, as explained below.

With respect to claim 1, the Office Action acknowledges that the Furuta patent lacks a hollow zone as claimed. However, the Office Action alleges that hollow control levers are notoriously well known (citing numerous references that include some form of hollow in the lever), and thus it would have been obvious to provide an axially extending hollow zone as required by claim 1 in the lever of Furuta in order to reduce the weight of the lever. Applicant respectfully disagrees. However, in any case, Applicant has amended claim 1 to even more clearly distinguish the prior art of record. In particular, Applicant has clarified the shape of the internal bore, the material of the control lever, and the wall thickness of the control lever at the internal bore, as outlined above. Assuming arguendo that one of ordinary skill in the art made a bore in the lever of the Furuta patent as suggested in the Office Action, clearly there is no suggestion or motivation to orient, locate and shape the bore and lever as currently required by independent claim 1, especially as now amended. Rather, at best, one of ***might*** create a hollow identical to one disclosed in one of the other references listed in this section of the Office Action. However, none of these references disclose a hollow zone as currently required by independent claim 1. Accordingly, the prior art of record lacks any suggestion or expectation of success for modifying the Furuta patent to create the Applicant's unique arrangement, as required by claim 1. Accordingly, withdrawal of this rejection is respectfully requested.

Moreover, Applicant believes that dependent claims 3 and 5 are also allowable over the prior art of record in that they depend from independent claim 1, and therefore are allowable for the reasons stated above. Also, the dependent claims are further allowable because they include additional limitations. Thus, Applicant believes that since the prior art of record does not disclose or suggest the invention as set forth in independent claim 1, the prior art of record also fails to disclose or suggest the inventions as set forth in dependent claims 3 and 5. Accordingly, withdrawal of the rejection of these dependent claims is also respectfully requested.

Referring now to the rejection of claims 10-14, independent claim 10 as now amended requires ***the inclined second actuation surface having a transverse height that is at least one-half of the transverse height of the first actuation surface with the transverse heights being measured in directions perpendicular to the first plane, and the transverse height of the first actuation surface being more than half of an overall transverse height of the actuating section as measured in directions perpendicular to the first plane***. Clearly, this structure is ***not*** disclosed or suggested by the Furuta patent or any other prior art of record.

The Office Action indicates that the Furuta patent teaches the invention substantially as claimed, but acknowledges in this section of the Office Action that the Furuta patent does not explicitly teach the required dimensional relationships. However, the Office Action indicates that it is common knowledge to form Furuta's lever to have the size or dimension as claimed in order to optimize size/shape of Furuta's lever. The Office Action references MPEP 2144.04, and asserts that the claimed dimensional relationships would have been obvious to one of ordinary skill in the art as taught or suggested by common knowledge in the art. Applicant respectfully disagrees with the Office Action, especially in view of the amendments to independent claim 10.

The dimensional relationships as claimed do not represent a mere change in size from the prior art. Rather, the claimed dimensional relationships of the dual control lever of the present invention are unique regardless of the size of the lever. In fact, the claimed dimensional relationships and orientations are not found in the prior art. In other words, the claimed dimensional relationships are not common knowledge in the art. While Applicant acknowledges that MPEP 2144.04 (relating to change in size/proportion) states "where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device[,] and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device", in this case, the claimed device will perform differently than the prior art. Specifically, in this case, the claimed device will perform differently because of the claimed dimensional relationships. Prior art dual control levers with different dimensional relationships and/or orientations than those claimed (for actuation surfaces relative to the overall transverse height of the lever) can be uncomfortable for the rider's fingers during at

least some shifting movements. See paragraphs [0003] and [0004] of the instant application as filed. On the other hand, the dimensional relationships and their orientations as claimed (for actuation surfaces relative to the overall transverse height of the lever) provide for a more comfortable shifting experience. In particular, as stated in the instant application, one object of this invention is to provide a control lever that is comfortable. See paragraph [0006] of the application as filed. Thus, the claimed device does perform differently than the prior art. Accordingly, MPEP 2144.04 is not particularly relevant in this case. Based on the above arguments and amendments, clearly there is no suggestion or motivation to modify the Furuta patent to result in the unique arrangement of independent claim 10. Accordingly, withdrawal of this rejection is respectfully requested.

Moreover, Applicant believes that the dependent claims 11-14 are also allowable over the prior art of record in that they depend from independent claim 10, and therefore are allowable for the reasons stated above. Also, the dependent claims 11-14 are further allowable because they include additional limitations. Thus, Applicant believes that since the prior art of record does not disclose or suggest the independent claim 10, neither does the prior art disclose or suggest the respective dependent claims. Accordingly, withdrawal of the rejection of these dependent claims is also respectfully requested.

Double Patenting

In paragraphs 13 and 14, claim 10 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 3 of U.S. Patent No. 6,647,823 (hereinafter "the '823 patent). This rejection is respectfully traversed, especially in view of the amendments to claim 10, explained above.

Specifically, claim 10 requires independent claim 10 as now amended requires ***the inclined second actuation surface having a transverse height that is at least one-half of the transverse height of the first actuation surface with the transverse heights being measured in directions perpendicular to the first plane, and the transverse height of the first actuation surface being more than half of an overall transverse height of the actuating section as measured in directions perpendicular to the first plane***. This claim also requires a control lever including an attachment section and an actuating section extending from the attachment section, the attachment section being operatively coupled to the control

mechanism, the actuating section having a first actuation surface extending in a direction substantially perpendicular to the first plane and an inclined second actuation surface facing substantially away from the first actuation surface downwardly and towards the handlebar, the inclined second actuation surface extending in a direction intersecting the first and second planes, where the first and second planes are substantially perpendicular to each other. While the '823 patent generally discloses the same type of device as the present invention, claims 1 and 3 of the '823 patent fails to disclose or suggest the arrangement of the actuation surfaces as required by claim 10, especially as now amended. Moreover, as explained above, there is no common knowledge in the prior art of record that discloses or suggests this unique arrangement as asserted in the Office Action. Accordingly, withdrawal of this double patenting rejection is respectfully requested.

Prior Art Citation

In paragraph 15 of the Office Action, additional prior art references were made of record. Applicant believes that these references do not render the claimed invention obvious.

New Claims

Applicant has added new claims 18-20 by the current Amendment, as mentioned above. Applicant believes new claims 18-20 read on the elected embodiment of Species I, illustrated in Figures 1-9. Accordingly, examination and consideration of claims 18-20 are respectfully requested.

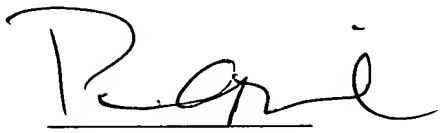
New independent claim 18 is similar to original claim 10, but includes a hollow zone that is a blind bore formed in the actuating section similar to claim 8. Applicant believes the prior art lacks such a hollow zone.

New claims 19 and 20 depend from claims 18 and 8, respectively. Thus, these claims are believed to be allowable for the reasons stated above with respect to independent claims 18 and 8, respectively. Moreover, the body of these claims corresponds to the body of original claim 6, now cancelled, which is not believed to be disclosed or suggested in the prior art.

* * *

In view of the foregoing amendment and comments, Applicant respectfully asserts that claims 1-5 and 7-20 are now in condition for allowance. Reexamination and reconsideration of the pending claims are respectfully requested. If there are any questions regarding this Amendment, please feel free to contact the undersigned

Respectfully submitted,



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